PATENT 213/001-CIP

ABSTRACT

SUGAR MODIFIED NUCLEOSIDES AND THEIR USE FOR SYNTHESIS OF OLIGONUCLEOTIDES

5 A number of modified nucleosides are disclosed composed of modified sugar moieties which contain substituents at C1 and C4 positions, or branched substituents at C3 and C5 positions of deoxyribose or ribose. Each nucleoside is converted to or properly protected and then converted to the 10 corresponding phosphoramidites. These phosphoramidites are used to assemble oligonucleotides in which there is at least one of the forenoted nucleosides. These sugar modified oligonucleotides have the potential to be used as antisense therapies since they are expected to enhance nuclease 15 resistance and cellular uptake while they maintain sequencespecificity and affinity to nucleic acid targets in vitro or in vivo.

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